

## REMARKS

Claims 1-12 and 14-37 are now pending in the application, with previously examined claims 1-12 and 16-28 having been rejected, previously withdrawn claims 13-15 having been canceled, and new claims 29-37 having been added. In reply, the rejection of claims 1-12 and 16-28 is traversed for the reasons explained below. This reply includes an amendment changing some of the pending claims, canceling withdrawn claims 13-15, and adding new claims 29-37.

*Comment on Disposition of the Claims*

Claims 1-28 were indicated as being rejected in the Office Action Summary section of the July 31<sup>st</sup> Office action. However, claims 13-15 were previously withdrawn from consideration, and were in fact not specifically treated in the Detailed Action section. Applicants therefore believe that the indication in the Office Action Summary that claims 13-15 were also rejected is a minor oversight, and treat the rejection as having been of claims 1-12 and 16-28.

*Status of the Power of Attorney*

The examiner's acknowledgement of the submission of a Revocation and Power of Attorney is noted with appreciation.

*Status of the References Cited but Not Considered in the  
Previously-Filed Information Disclosure Statement*

In the Office action of December 13, 2002, the examiner indicated that he had not considered Japanese Patent Publications 11-328266, 11-338879, 2000-48046 and 2000-57090 cited in the Information Disclosure Statement filed June 6, 2002, because these references were not in the English language and the Information Disclosure Statement did not include a concise explanation of relevance. Applicants are investigating the relevance.

*Substitute Formal Drawings Submitted Herewith  
Overcome Objections to the Drawings*

The examiner has maintained an objection to the drawings. The drawings stand objected to by the draftsman as stated in the Notice of Draftsman's Patent Drawing Review dated December 27, 1999 and accompanying the Office action of December 31, 2002. In that Notice, the draftsman indicated that the margins of the drawing sheets containing Fig. 5 and Fig. 6A were not acceptable.

To overcome the objection, applicants hereby submit two formal drawing replacement sheets for Fig. 5 and Fig. 6A respectively, which have correct margins. The replacement sheets are included in the Appendix.

*Prior Objections to the Specification and Claims Withdrawn*

The examiner's withdrawal of the prior objection to the Specification and claims due to applicants prior amendment is noted with appreciation.

*Claim 16 Has Been Amended to Over the Examiner's Objection*

The examiner has objected to claim 16, stating that "the claim uses the language 'selected items', while not specifying the meaning of the term." Claim 16 has been amended by adding an antecedent basis for the term "selected item" in lines 3 and 4 of the claim. As amended, claim 16 is believed to establish clear antecedent basis for the term "selected items" and withdrawal of the rejection respectfully is requested.

*Applicants' Comment on the Examiner's Withdrawn  
of the Section 112 Rejection of Claims 1-12 and 17*

The examiner's withdrawal of the prior rejection of claims 1-12 and 17 due to applicants prior arguments is noted with appreciation. Applicants also acknowledge the examiner's correction of the location of the "predicted values" discussion in the Specification.

*Claims 1 and 3-12 Are Not Anticipated by Hay*

Claims 1 and 3-12 were rejected under 35 U.S.C. §102 (b) as being anticipated by U.S. Patent No. 4,996,642 issued to Hay. The rejection is traversed.

To anticipate a claim, the reference must teach every element of the claim. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Applicants respectfully submit that the Hay patent does not teach every element of the rejected claims.

Applicants previously argued that Hey does not disclose specifying an adaptable constraint filter, using constraint forming rules, to select ones of the items satisfying a constraint. All that Hey discloses is a single constraint that is hard-wired into the recommendation process, which is entirely different than specifying an adaptable constraint filter using uses constraint-forming rules (as supported by, for example, the embodiment of Fig. 4 and 6A as described on pages 8-9 of the present application). As a consequence of specifying the constraint filter using the constraint rules, the constraint filter becomes adaptable to different users. Such an option is not provided by Hey's system. Since Hey's constraint is hard-wired, there is no flexibility and all users are subject their recommendations passing through the same constraint.

The examiner disagreed with applicants' position. The examiner's position is that Hey discloses that the user can select a specific item as part of the predetermined criteria (citing column 3, lines 33-38), and that the user can enter selection criteria prior to the recommendation process (citing column 3, lines 22-24). The examiner is of the view that these passages clearly teach that the constraint filters are adaptable, since in both cases the user can adapt the constraints to his preference. As to the constraint forming rules, the examiner is of the view that Hay discloses that each individual predetermined criteria, whether entered by the user or not, is analogous to the claimed constraint forming rules (citing column 3, lines 16-18).

Applicants traverse the rejection of claim 1 as previously amended for the same reason as previously argued. In reply to the examiner's position, applicants do not agree that the cited portions of Hey anticipate the invention of claim 1 for the following additional reasons.

Consider first the disclosure of column 3, lines 16-24. To better understand this disclosure, reference should be made to column 2, line 59 through column 3, line 15, which discloses that recommendations for a selected user are adjusted to anticipate the actual reaction of the user to the item. After the recommendations are adjusted to anticipate the actual reaction of the user to the item, then column 3, lines 16-24 disclose that one or more of those items are selected based on "predetermined criteria" and on availability.

The only predetermined criteria taught are (1) selection of the most highly recommended item and (2) selection of a number of the most highly recommended items. The user may specify this predetermined criteria, i.e. whether the user wants selection of the most highly recommended item or a number of the most highly recommended items, prior to the recommendation process. It will be appreciated that this so-called "predetermined criteria" has nothing to do with the claimed adaptable constraint filter. The "predetermined criteria" may have some relevance to the claimed "appending" step, but the appending step is entirely different than the claimed step of specifying an adaptable constraint filter. Specifically, the additional limitation imposed by claim 2 appears to be similar, although not identical, to "selection of the most highly recommended item," while the additional limitation imposed by claim 3 appears to be essentially the same as "selection of a number of the most highly recommended items." The structure of claims 1-3 thereby unequivocally establishes that the "predetermined criteria" of Hey has nothing to do with specifying an adaptable constraint filter.

Consider next the disclosure of column 3, lines 33-38, which the examiner cites for the teaching that the user can select a specific item as part of the predetermined criteria. Applicants understand the cited material quite differently. Column 3, lines 33-38 discloses only that the system may provide a rating for a specific item selected by a customer. In other words, a customer who wishes to learn what type of recommendation "has been made for him for certain movies not yet seen by him," column 3, line 35 (emphasis supplied), need not look through a long list of ranked movies, but need only select certain movies that he has not yet seen and the system then presents those selected movies with ratings predicted for him. This disclosure has

nothing to do with specifying an adaptable constraint filter using constraint forming rules. Moreover, if the selecting of movies is considered to be "predetermined criteria," which is not at all clear from Hey and which applicants do not admit, then it has nothing to do with specifying an adaptable constraint filter for the reasons presented above in the context of the structure of claims 1-3.

Since Hey fails to teach all the elements of claim 1, claim 1 is not anticipated by Hey and is allowable.

Dependent claims 3-12, which depend from claim 1 and further limit the invention of claim 1, were also rejected under 35 U.S.C. §102(b) as being anticipated by Hey. While Applicants do not acquiesce with the particular rejections to these dependent claims, it is believed that these rejections are moot in view of the remarks made in connection with independent claim 1. Moreover, many of these dependent claims contain additional limitations that are not found in Hey, either expressly or inherently, as previously discussed. These are examples of additional reasons why the dependent claims are not anticipated by Hey. Therefore, dependent claims 3-12 are also in condition for allowance.

*Claims 16-28 Are Not Obvious Over Hey in view of Jarke et al.*

Claims 16-28 were rejected under 35 U.S.C. §103 as being obvious over U.S. Patent No. 4,996,642 issued to Hay in view of an article by Jarke et al. entitled "Query Optimization in Database Systems." The rejection is traversed.

Applicants previously argued that neither Hey nor Jarke et al. teaches or suggests a processing component that is configured to determine an order by which to apply the constraint and recommendation filters. The examiner acknowledged that Hey fails to teach or suggest this step, and so turned to the Jarke et al. reference for the missing teaching.

Jarke et al. is directed to the optimization of queries in database systems. As previously discussed by applicants, Jarke et al. teaches, in Section 5, beginning on page 134, the development of an optimal access plan. This consists of the following

steps: 1) generating all reasonable logical access plans for evaluating the query; 2) augmenting the logical access plans by details of the physical representation of the data and 3) choosing the cheapest access plan by applying a model of access and costs. One method of reducing optimization costs, discussed in section 5.3, starting at page 137, is to compute the cost of strategies incrementally in parallel, using a dynamic query optimization procedure.

Jarke et al. uses optimization procedures to reduce the cost of retrieving items from a database. It is important to realize that Jarke et al. does not discuss the application of constraint filters, nor the application of a recommendation filter. Instead, Jarke et al. is concerned with retrieving items from a database, which in practice would be carried out to provide the plurality of items recited in the preamble of claim 16. Jarke et al. teaches a way of optimizing the initial search and retrieval of data from a database. Jarke et al. is not concerned with how to choose the order of applications performed on the items once they have been retrieved from the database. In particular, Jarke et al. fails to teach or suggest that, once items have been retrieved from the database, a determination is made as to the order to two successive operations, namely constraint filtering and recommendation filtering.

The examiner disagreed with applicants' position. The examiner's position is, in summary, that the choice of the access plan (the sequence of operations or of intermediate results) that minimizes processing costs, as disclosed in Jarke et al., is completely analogous to the claimed determination of order of filters.

Applicants traverse the rejection of claims 16-28 for the same reason as previously argued. In reply to the examiner's position, applicants furnish the additional reasons in support of patentability of claims 16-28.

Jarke et al. is without doubt expressly directed to the particular problem of query optimization in database systems. This is clear from the title "Query Optimization in Database Systems," from the first sentence of the Abstract ("Efficient methods of processing unanticipated queries are a crucial prerequisite for the success of generalized database management systems"), and the first sentence of the body of the

article itself ("Database management systems (DBMS) have become a standard tool ..."). The question, then, is whether Jarke et al., the teachings of which are unequivocal directed to database management systems, can be combined with Hey to render the claimed invention obvious.

The applicable principle is set forth in MPEP § 706.02(j), which includes the following.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

MPEP § 706.02(j), 8th Edition, Rev. 1, February 2003, p. 700-45 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)) (emphasis supplied).

Applicants believe that the examiner has improperly based the obviousness rejection on hindsight reconstruction, where the suggestion, if any (applicants do not admit there is any), to apply the teachings of Jarke et al. to Hey is taken from applicants' disclosure. Jarke et al. is concerned with data base management systems. The claimed invention relates to an apparatus designed to provide a recommendation list from a plurality of items in a data processing system. While the data processing system may very well use a data base management system to provide the data items, the data base management system is different from and is not an element of the claimed invention. Jarke et al. contains no express teaching or suggestion to apply its technique to choose an access plan that minimizes DBMS processing costs to determining an order for a constraint applying step and a recommendation filter applying step.

Accordingly, since the proposed combination of references fails to teach or suggest a processing component configured to process instructions for selecting items from the plurality of items by determining an order for the constraint filter applying step and the recommendation filter applying step, the proposed combination of references fails to teach or suggest all the elements of independent claim 16, and claim 16 is patentable over the cited art.

Dependent claims 17-28, which depend from claim 16 and further define the invention of claim 16, were also rejected under 35 U.S.C. §103(a) as being unpatentable over the proposed combination of Hey and Jarke et al. While applicants do not acquiesce with the particular rejections to these dependent claims, it is believed that these rejections are moot in view of the remarks made in connection with independent claim 16. Therefore, dependent claims 17-28 are also in condition for allowance.

*Claim 2 Is Not Obvious Over Hey in view of Herz*

Claim 2 was rejected under 35 U.S.C. §103 as being obvious over U.S. Patent No. 4,996,642 issued to Hay in view of US Patent No. 6,460,036 issued to Herz. The rejection is traversed for the reasons given as to the patentability of claim 1 from which claim 2 is dependent, as well as the reasons previously of record.

*Comments on the Examiner's Reply to Applicants' Arguments  
for Patentability of the Dependent Claims*

The examiner responded to applicants arguments in support of various dependent claims by citing to various portions of Hey; see numbered paragraphs 48-51. The examiner's responses are supported by the positions on the "predetermined criteria" and "prior entry of selection criteria" issues that the examiner took in rejecting claim 1. Applicants' comments in support of the patentability of claim 1 are equally applicable to support patentability of these dependent claims.

*New Claims 29-37 Have Been Added*

Claims 29-37 have been added pursuant to applicants' right to present the claimed subject matter in a reasonable number of claims of varying scope. These claims are fully supported by the present application as filed and contain no new matter.

*Conclusion*

In view of the amendments and reasons provided above, it is believed that all pending claims are in condition for allowance. Applicants respectfully request favorable reconsideration and the timely issuance of a Notice of Allowance. If a telephone

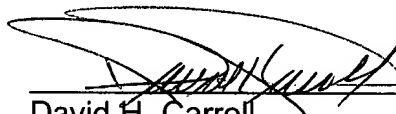


conference would be helpful in resolving any issues concerning this communication,  
please contact the undersigned at (952) 253-4135.

Respectfully submitted,

Altera Law Group, LLC  
Customer Number 22865

Date: December 1, 2003

A handwritten signature in black ink, appearing to read "David H. Carroll", is written over a horizontal line.

David H. Carroll  
Reg. No. 29,903